New Perspectives on Homeownership Tax Incentives

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In this report, the authors analyze the economic effects of various reforms to the tax treatment of housing. These reforms differ from both the current treatment of housing and most proposed reforms (such as Bowles-Simpson); they attempt to reward homeownership directly, not the build-up of additional debt.

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This report presents three tax reforms designed to promote homeownership that are fundamentally different from earlier proposals. Many of those earlier proposals would convert existing deductions into credits but would mistakenly, in our view, perpetuate flaws in the current system — namely, the failure to adequately promote the accumulation of home equity. The reforms examined here instead share the common characteristic of subsidizing homeownership through a channel other than the deductibility of mortgage interest, which is the largest tax expenditure for housing. These reforms include a first-time home buyer tax credit, a refundable tax credit for property taxes paid, and an annual flat amount tax credit for homeowners — all largely paid for by restricting the home mortgage interest deduction to a rate of 15 percent. Although far from perfect, these reforms would provide a better and more efficient allocation of housing subsidies and ultimately provide a somewhat larger incentive for wealth accumulation than current policy does. Our simulations show that relative to existing incentives, each policy would raise home prices and make the tax code more progressive.

I. Background

Homeownership is frequently cited as a laudable policy goal in the United States. While a debate over the social merits of homeownership remains unsettled, advocates cite a wide body of research reinforcing the notion that homeownership improves American communities.[1] Support for homeownership has developed into one of the most expensive social programs in the federal budget, with tax and spending incentives adding up to hundreds of billions of dollars annually. Government subsidies for homeownership generally fall into three categories: implicit and explicit mortgage guarantees that lower the cost of mortgages for homeowners, direct subsidies for low-income home buyers, and tax deductions and exclusions for homeownership. Deductions and exclusions for homeownership are the focus of this report.

The major tax preferences for homeownership in the federal income tax are the mortgage interest deduction on owner-occupied homes, the deduction for state and local taxes paid on owner-occupied property, and the exclusion of capital gains on the sale of an owner-occupied home.[2] The

[1]*See* National Association of Realtors (2012) for the housing industry's perspective on the social benefits of homeownership. *See also* Lerman and McKernan (2008) for the benefits of homeownership.

[2]Deductions for mortgage interest and property taxes paid are not technically tax subsidies. The real subsidy arises because net imputed rent — the unmeasured rental income derived from homeownership less expenses (including interest, taxes, and

(Footnote continued on next page.)

mortgage interest deduction allows taxpayers to deduct mortgage interest on up to $1 million of debt used to purchase or refinance a primary or secondary home. Taxpayers may also deduct interest paid on up to $100,000 in home equity loans or additional mortgage debt. These limits are not indexed to inflation and have been constant since 1988. Taxpayers may also deduct many types of nonbusiness state and local taxes paid, including residential property taxes.[3] Unlike the mortgage interest deduction, there is no cap on the amount of deductible property taxes that taxpayers may claim.[4] A third major tax expenditure for housing is the capital gains exemption on the sale of an owner-occupied home. For taxpayers who have lived in a primary residence for at least two of the five years before sale, the first $500,000 ($250,000 if single) in capital gains are exempt; these limits are not indexed to inflation. Combined, these tax preferences usually mean that homeowners pay less in taxes if they invest in owner-occupied housing than if they invest in other taxable assets.

Tax expenditures for owner-occupied housing are mostly a byproduct of long-standing tax law and not the outcome of a conscious effort to design pro-homeownership policies. Taxpayers have been allowed to deduct mortgage interest since the inception of the income tax in 1913, when all consumer interest could be deducted. Other forms of interest deductibility have gradually been disallowed over time, most significantly in 1986 when Congress eliminated the deduction of interest on consumer debt, such as credit cards and auto loans. Similarly, property taxes have always been deductible under the regular income tax (although not the alternative minimum tax). One justification was that individuals have no discretion over whether to pay state and local taxes and thus taxpayers with high subnational tax burdens are less able to pay federal taxes.[5] Capital gains on the sale of a home were taxed until 1951, when a new law allowed the deferral of capital gains taxes if the sale proceeds were used to purchase another home of equal or larger value. Between 1964 and 1981, Congress passed a series of laws granting older homeowners a one-time exclusion on capital gains on the sale of a principal residence. By 1981, a one-time $125,000 exclusion was available to all homeowners over age 55. In 1997 the rollover provision and one-time exclusion were replaced with a $250,000 per-person exclusion on principal residence capital gains. In contrast to the 1981 one-time exclusion, homeowners could claim this exclusion more than once.[6]

In recent years, calls for reform of the homeownership subsidies have intensified. Several proposals have sought to limit and equalize the tax benefit for homeownership by retaining the subsidy for mortgage interest, but at an equal rate across taxpayers. For example, both President Obama's fiscal commission and the Bipartisan Policy Center's Debt Reduction Task Force recommended replacing the mortgage interest deduction with a tax credit for mortgage interest paid and eliminating the deductibility of property taxes (National Commission on Fiscal Responsibility and Reform (2010); Bipartisan Policy Center (2010)). Other researchers have also explored various credit designs, including Carasso, Steuerle, and Bell (2005a); Gale, Gruber, and Stephens-Davidowitz (2007); and Viard (2013).[7] In the spirit of reform, this report also examines ways to transform existing housing subsidies, but instead offers policies that would subsidize homeownership without reducing the cost of debt finance to such an extent that it discourages the build-up of home equity.

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depreciation) — is untaxed. Imputed rent is hard to measure, so the deductibility of property taxes and mortgage interest are used as proxies.

[3]The mortgage interest and property tax deductions are itemized deductions. Under the individual income tax, taxpayers deduct the larger of the standard deduction, equal to $12,200 for married filers and $6,100 for single filers in 2013, and the sum of their itemized deductions (the largest itemized deductions are for state and local taxes paid, mortgage interest, and charitable contributions). Taxpayers whose combined itemized deductions are less than the standard deduction do not claim the mortgage interest and property tax deductions and thus do not directly benefit from those provisions.

[4]State and local taxes paid, including property taxes, are not deductible under the alternative minimum tax — a parallel tax system with different limits and treatment of deductions than the regular income tax. In 2010, 4.1 million taxpayers were subject to the AMT, with a disproportionate share coming from high-tax states, such as California, New Jersey, and New York (Tax Policy Center 2013). This disallowance is the largest single source of income by which the AMT tax base exceeds taxable income in the regular income tax.

[5]An alternative perspective is that state and local taxes, especially property taxes, are benefit taxes that are associated with higher public services in taxing localities and thus are a form of consumption that should not be deductible.

[6]Both the one-time exclusion before 1997 and the $250,000 exclusion available after 1997 were subject to residency requirements.

[7]Many proposals would also limit the maximum size of the mortgage eligible for tax preferences (currently $1 million), eliminate the deductibility of interest on second homes, and disallow write-offs for home equity loans. For example, the Bowles-Simpson proposal would limit the maximum mortgage to $500,000, while Viard would cap it at $300,000. A 2005 tax reform panel established by President Bush recommended converting the deduction to a 15 percent nonrefundable credit and limiting the maximum mortgage eligible for the subsidy to 125 percent of the median local home price (President's Advisory Panel (2005)).

II. Rethinking Homeownership Incentives

Economists often note that returns from all investments should be accorded the same tax treatment. If this were the case, the tax on owner-occupied housing would ideally apply to income less expenses. In the context of owner-occupied housing investment, however, the income, or imputed rent, is not measured directly. Theoretically, it equals the market rental value of the home. Expenses include mortgage interest, property taxes, and depreciation. In practice, the tax code treats housing differently from other investments. Mainly because imputed rent is difficult to measure, it is excluded from tax, yet select expenses — mortgage interest and property taxes — may still be deducted from income. Thus, economists often cite the more measurable mortgage interest and property tax deductions as tax preferences for homeownership.[8] Exclusion of capital gains on the sale of owner-occupied homes is often counted as a third major tax expenditure.

To clarify this distinction, compare a taxpayer who invests $100,000 in the purchase of a home with no mortgage with one who deposits $100,000 into a bank account and rents an identical home. The former does not pay tax on the return from the investment while the latter does. For the homeowner, there is no measured income on the asset from which to deduct mortgage interest or property taxes paid. Although the two assets in this example have equal value, the homeowner pays less tax.

The exclusion of imputed rent from investment in owner-occupied housing makes ideal income taxation of housing investment impossible. Given this exclusion, the deduction for mortgage interest corrects for one distortion while magnifying another. On one hand, the presence of the mortgage interest deduction creates neutrality between equity owners and borrowers because it allows borrowers to deduct one of the costs of ownership. One of the benefits of the mortgage interest deduction is that it partially equalizes the treatment of new borrowers (often younger, with less wealth) with equity owners (often older, with higher wealth). Conversely, the mortgage interest deduction magnifies distortions because it adds to the subsidy for owner-occupied housing. It also further promotes consumption outside the home, as when individuals borrow against existing equity and use the proceeds to finance direct consumption.[9]

Tax expenditures for homeownership are expensive in terms of lost revenue. The Joint Committee on Taxation estimates the aggregate cost of the three provisions at $121.3 billion in 2013.[10] The mortgage interest deduction was estimated to cost $69.7 billion this year, followed by the property tax deduction at $27.8 billion and the capital gains exclusion at $23.8 billion. Eight other tax expenditures for housing in the JCT's list cost an additional $7.8 billion in 2013 (JCT (2013)).[11]

A. Social Benefits of Homeownership

Defenders of the tax expenditures for homeownership often argue that homeownership provides positive social benefits — what economists call ''positive externalities.'' These benefits typically fall into two categories: spillover effects and wealth accumulation.

Spillover effects refers to benefits related to homeownership beyond the direct benefit the individual homeowner receives, such as the improved social environment associated with more engaged civic participation and reduced crime. Residents who own their homes instead of renting gain a financial interest in the welfare of their communities, which gives them an incentive to help improve the quality of life in their neighborhood.

Homeownership is also justified as a vehicle for wealth accumulation. If financial short-sightedness, the safety net of government programs, or other factors lead households to save too little, homeownership might offer a means of inducing greater wealth accumulation. Paying off a mortgage and

[8]The mortgage interest deduction has been justified on the grounds that it extends the benefits from the exclusion of imputed rent to home buyers who must use debt financing to purchase a home. *See* Toder (2013) for a precise example and further discussion.

[9]Consumer interest is generally nondeductible, but home equity is a backdoor way to finance consumption with deductible debt. There are limits on use of debt for non-housing purposes in the AMT, but they are difficult for the IRS to enforce.

[10]Because of interaction effects, the combined result of repealing multiple expenditures may not equal the sum of repealing them separately. For example, eliminating the mortgage interest reduction reduces the value of the property tax deduction, and vice versa. Burman, Geissler, and Toder (2008) showed that the error from adding tax expenditures was relatively modest overall. A more serious challenge is that tax expenditures may differ substantially from revenue estimates.

[11]The smaller housing tax expenditures include the exclusion of interest on state and local government qualified private activity bonds for owner-occupied housing, the deduction for premiums for qualified mortgage insurance, the exclusion of income attributable to the discharge of principal residence acquisition indebtedness, the credit for low-income housing, the credit for rehabilitation of historic structures, the credit for rehabilitation of structures other than historic structures, the exclusion of interest on state and local government qualified private activity bonds for rental housing, and the depreciation of rental housing exceeding the alternative depreciation system.

gaining home equity is the primary way that many low- and moderate-income households save. By the time of retirement, the home is the largest asset for these households, often worth more than their private retirement accounts (Soto (2010)).

The exclusion of capital gains on owner-occupied housing is justified for other reasons.[12] The exclusion weakens the lock-in effect — the notion that individuals hold onto assets if their sale would be taxed. Thus, households are less likely to stay in homes they would sell but for the tax.[13] This contributes to increased labor mobility, making it easier for people to move to regions with better job opportunities. The exclusion also eases the compliance burden on a home seller of having to determine the adjusted basis of the home. A generous exclusion allows sellers to ignore the record keeping associated with capital improvements because sellers are likely to have no taxable gain even without accounting for capital improvements.[14]

B. Drawbacks of Homeownership

Homeownership does not benefit all households — for some, owning a home may have negative effects. For example, high transaction costs associated with buying and selling a home may reduce labor force mobility and thus contribute to unemployment. Reduced mobility among disadvantaged groups can also keep households from moving out of depressed or impoverished communities.[15] In a sense, studies identifying these issues align with studies showing positive benefits of homeownership: Both find that homeownership strengthens community bonds, but those bonds may be positive or negative.[16]

C. Shortcomings of Current Law

Existing tax benefits for homeowners fail to directly subsidize the costs of owning a home and thus do little to encourage homeownership. Instead they induce people to take on more debt to buy bigger homes or move to jurisdictions that provide more services.

The mortgage interest deduction subsidizes the use of homes as collateral for mortgage debt, regardless of how the borrowed funds are used. Cash-out refinancing and home equity loans yield deductible interest payments that subsidize homeowners' borrowing but appear to have little effect on whether people buy homes in the first place. The property tax deduction reduces the after-tax cost of residing in a jurisdiction that uses higher property taxes to provide more public services. The capital gains exclusion for owner-occupied housing explicitly rewards the sale of an appreciated home. None of these provisions is narrowly targeted to explicitly reward homeownership.

Current subsidies for homeownership tend to subsidize ongoing costs of homeownership rather than the substantial costs associated with a home purchase or sale, which can be a large portion of the total cost of owning a home. Buying or selling a home in the United States is expensive. Costs include broker fees, real estate transaction taxes, mortgage fees, and title insurance premiums. Fees paid to a mortgage lender or broker averaged about $3,500 in 2001, and title fees averaged $1,200 per loan. Sellers paid a median real estate commission equal to 5.5 percent of the home's sale price (Woodward (2008)). In a sample of 23 cities, Harris (2013) found that transaction costs as a share of home price range from 6.29 percent in St. Louis to 11.44 percent in Philadelphia; for short-lived housing investments, transaction taxes are the largest component of housing costs.

Further, as discussed in more detail below, current subsidies for housing provide larger subsidies for higher-income homeowners and, with the possible exception when there are capital gains, no subsidies for taxpayers who do not itemize.[17] (Taxpayers whose itemized deductions are smaller than the standard deduction will not claim itemized deductions.) This primarily occurs for three reasons. First, like other deductions, itemized deductions for housing are valuable only to taxpayers whose total itemized deductions exceed the value of the standard deduction. This scenario is more likely for high-income taxpayers, who typically pay more state and local taxes, have bigger mortgages, and give more to

[12] *See* Burman, Wallace, and Weiner (1997) and Gravelle and Jackson (2007) for discussions of the merits of excluding capital gains from the sale of an owner-occupied home.

[13] Cunningham and Engelhardt (2008) find that the expanded exclusion of capital gains on owner-occupied housing significantly improves mobility.

[14] The gain equals the difference between the sales price and the adjusted basis of the home — the purchase price plus the cost of subsequent improvements. There is some question whether aggregate real capital gains on housing are positive over time.

[15] For example, Head and Lloyd-Ellis (2012) find a significant link between homeownership and unemployment. At the same time, rental subsidies can also discourage mobility, as when low-income households fear losing those subsidies by moving.

[16] *See* Rohe, Van Zandt, and McCarthy (2001) for a discussion of the conflict between neighborhood stability and individual mobility.

[17] Cole, Gee, and Turner (2011) estimate that taxpayers in the top decile paid 35 percent of the mortgage interest expense but reaped 86 percent of the benefit of the mortgage interest deduction. Similarly, Toder, Harris, and Lim (2011) find that the mortgage interest deduction lowers after-tax income substantially more for taxpayers in the top income quintile relative to other taxpayers.

charities. Only 30 percent of filers itemize deductions, and the likelihood of itemizing rises with income, as discussed below. Second, itemized deductions are worth more for taxpayers in higher tax brackets. For example, a $100 deduction saves a person in the 39.6 percent bracket $39.60 but saves a person in the 10 percent bracket just $10. Moreover, not only is each dollar of deduction worth more to high-income taxpayers, but these taxpayers also typically have a higher amount of housing deductions above the standard deduction threshold. These factors combined provide high-bracket taxpayers a high subsidy for incurring mortgage interest or property tax liability, while low-bracket taxpayers receive little or no subsidy. Finally, the capital gains exclusion on housing tends to benefit upper-income taxpayers more because, all else equal, wealthier taxpayers tend to own more expensive houses and thus receive larger gains on their homes, and the capital gains rate is zero for taxpayers who are in the 15 percent bracket or below.

Tax expenditures for homeownership also suffer other flaws. The mortgage interest deduction reduces incentives to build equity in a home, with negative effects on housing stability and wealth accumulation. Poterba and Sinai (2011) found that homeowners with sufficient financial assets to repay their mortgage still carry mortgages presumably because of the tax benefits of doing so. This design flaw was evident during the Great Recession, when underwater homeowners included not just those who had recently purchased homes but also long-time homeowners who had taken on new mortgages as the value of their homes increased. In effect, the design of the home mortgage interest deduction added to the risk that homeowners would have negative equity in their homes.

Housing subsidies may also lead to overconsumption of housing, with households choosing to buy second homes and live in more expensive homes than they would otherwise. This overconsumption and overinvestment in housing means that tax expenditures for homeownership lead to underinvestment in non-housing industries by drawing resources away from other investments like small businesses and financial assets. And the overconsumption tends to cause housing prices (and rents) to increase, which may make some low-income homeowners (and renters) worse off than they would be if homeownership were not subsidized.

Further, the property tax deduction, along with deductions for other state and local taxes paid, distorts subnational government behavior. Several studies have found that the deduction of state and local taxes paid leads to both higher spending and a shift toward deductible forms of taxation, such as income and property taxes (Holtz-Eakin and Rosen (1988); Gade and Adkins (1990); Metcalf (2011)). These deductible forms of taxation tend to be more progressive than the property tax. Thus, while deductions for state and local taxes paid — including the property tax deduction — are regressive in isolation, these deductions may lead to more progressive taxation at the subnational level (Metcalf (2011)). The net distributional effect of the state and local deduction, incorporating the shift in subnational tax schemes, is unclear.

D. Guiding Principles for Reform

Tax-based housing subsidies could be reformed to better target homeownership and limit unintended distortions. The following five guiding principles could help to achieve this goal:

1. subsidize homeownership and the accumulation of home equity rather than subsidizing factors related to homeownership, such as mortgage debt;

2. subsidize purchases of primary residences, not secondary homes or home equity loans;

3. make subsidies available to households choosing between renting and homeownership, which often tend to be low- or middle-income households;

4. avoid incentives that increase disproportionately with the taxpayer's income and tax rate; and

5. account for all costs of homeownership, including the large outlays associated with both the purchase and sale of a home and the ongoing costs of homeownership, rather than just debt and tax costs.

III. Proposals for Reform

Increased recognition that existing tax preferences for homeownership are unequal, ineffective, and expensive has led to calls for change. Proposals include converting the mortgage interest deduction into a flat rate credit, scaling back the size and types of mortgages eligible for special tax treatment, and repealing the property tax deduction. While those suggestions have merit, other changes could better meet policy objectives of raising the homeownership rate of low- and middle-income families, encouraging home equity, and distributing the benefits of homeownership tax incentives more equally.

We do not propose to convert the home mortgage interest deduction to a credit based on interest paid because, like the existing home mortgage interest deduction, a credit insufficiently encourages home

equity.[18] Both types of subsidies may actually encourage homeowners to borrow more against their homes and thus reduce their net equity ownership.

The existing literature on reforming housing subsidies has largely ignored a more subtle, yet crucial point, when it comes to low- and moderate-income tax units. When the credit rate is above the taxpayer's marginal tax rate, this type of proposal not only removes any incentive for increasing equity ownership but also creates a net subsidy for borrowing. Consider a zero rate taxpayer receiving a 20 percent credit for mortgage interest paid. If the interest received on financial investments equaled $1,000 and the mortgage interest paid equaled $1,000, the taxpayer would net $200 in tax subsidies. Many taxpayers with limited amounts of income subject to tax, particularly retired taxpayers who own their homes and have nontaxed sources of income, such as Social Security, would be encouraged to borrow to the extent legally possible and invest the money elsewhere.

We present three options for reform: a first-time home buyer tax credit, an annual tax credit for homeownership, and a flat rate credit for property taxes paid. Each of these reforms would cap the value of the current mortgage interest deduction at 15 percent and repeal the property tax deduction but would retain the existing tax treatment of capital gains on owner-occupied housing. Keeping a limited interest deduction maintains neutrality between the borrower and the equity owner (with untaxed imputed rent) for the majority of tax units who fall in a tax bracket of 15 percent or below. This would be especially important to new homeowners who have not yet built up much in the way of equity.

Reform proposals frequently include other changes to the mortgage interest deduction, including disallowing the deduction of mortgage interest for second homes, reducing caps on the size of mortgages for which homeowners may deduct interest,[19] and eliminating the deduction of interest on home equity lines of credit. While these proposals have conceptual merit, we omit them here, in part because of modeling limitations. Also, our proposed 15 percent limit on the value of the deductions produces somewhat similar results by reducing the deduction's value and avoiding distinctions between the household with mortgages on two modest $100,000 houses compared with the household with one $200,000 mortgage.

Finally, we did not model any grandfathering of existing preferences or phase-in of new benefits, a typical part of any broader reform process.

A. First-Time Home Buyer Tax Credit

This proposal would provide home buyers with a refundable credit upon the purchase of a home. Most purchasers would be eligible for a maximum credit equal to $12,000 for single taxpayers and $18,000 for married taxpayers. To prevent subsidies disproportionate to the amount of housing purchased, the initial credit value would be set at 21.4 percent of the home price; homes purchased for less than $56,000 for single taxpayers and $84,000 for married taxpayers would receive a reduced subsidy.

This credit could be regarded as a subsidy for transaction costs, which create barriers to trade in the housing market and drive down volume.[20] Buying or selling a home has substantial transaction costs. Home buyers may pay mortgage broker fees, title insurance fees, and transaction taxes, in addition to many other smaller fees and taxes. Home sellers typically pay transaction taxes and often pay realtor commissions. For those who have owned their homes the median length of time, transaction costs make up an average of 26 percent of total homeownership costs; these costs are the largest homeownership costs for homes owned less than four years (Harris (2013)).

Subsidizing the purchase of a home would more directly encourage homeownership than subsidizing mortgage interest or property taxes paid. The subsidy would be available to all home buyers and its size would not depend on income, making the subsidy much more progressive than the current deductions. This provision would subsidize mobility and later lead to labor force gains by allowing

[18]This statement assumes that the credit rate is higher than the taxpayer's marginal tax rate. If the credit rate is lower than the taxpayer's marginal tax rate, the credit could leave a net incentive for equity instead of debt finance.

[19]The current limit, established in 1987 legislation, is $1 million and is not indexed to inflation. Other reforms have proposed to limit the maximum deductible mortgage to $500,000 (the Bowles-Simpson and Domenici-Rivlin deficit reduction proposals), $300,000 (Alan Viard's recent proposal), and 125 percent of the local median home price (President Bush's 2005 tax reform commission).

[20]Although research on the economic effects of housing transaction costs is thin, a handful of studies suggest that transaction costs drive down the volume of home sales. Dachis, Duranton, and Turner (2011) found that a transaction tax in Toronto — on average 1.1 percent of the housing value — reduced the volume of homes sold by 14 percent and drove down housing values by about 1 percent. Best and Kleven (2013) estimated that a temporary 1 percentage point drop in housing taxes in the United Kingdom would lead to a 10 percent jump in sales at the time of enactment, but that a slump in activity would occur after the cut expires. Slemrod, Weber, and Shan (2012) studied the effect of an increase in Washington transfer taxes and found that a 1 percent increase reduces the volume of sales by 0.2 percent.

workers to migrate to their best-matched employment. Further, capping the value of the subsidy at a level at which most first-time home purchasers would receive the same credit would concentrate total subsidies on homeownership itself and not on the size of a home. It would also decrease incentives for local governments to raise property tax rates.

There are some drawbacks. The principal shortcoming is that the credit could be better related to duration of homeownership. As it stands, long-tenured homeowners, with more years of contributing to their communities and higher levels of home equity, receive an identical subsidy for homeownership as do short-tenured owners. By tying the credit to the duration of ownership, homeowners who reside in their homes for an extended period, therefore, would receive a smaller subsidy as a share of the returns from homeownership. Moreover, without limits, some people may benefit from buying an inexpensive home (with a price near the level that maximizes the credit) and immediately selling it.

At a minimum, there probably should be a minimum homeowner tenure period to qualify for the subsidy (two years, the threshold for the CGT exemption, might be appropriate). Or the IRS may be permitted to recoup the credit, or a portion of the credit, from homeowners who sell their homes after purchase — that is, a prorated recapture of the credit for sales that occur within a given number of years from purchase. However, recapture provisions would require the IRS to monitor the use of credits by individuals over time.[21] Although this is likely not an insurmountable problem, it probably requires some administrative compromises.

B. Property Tax Credit

This proposal would give homeowners a refundable 35.8 percent credit for property taxes paid up to a maximum benefit of $1,400 for single filers and $2,100 for married taxpayers filing jointly; the caps would not be binding for most taxpayers. The credit would not phase out at higher income levels — all homeowners could claim the full tax preference. This approach would refocus tax subsidies away from mortgage interest and property tax deductions toward a credit for property taxes paid, which would lower the cost of homeownership for many taxpayers.

Property taxes are a substantial cost for homeowners. The median property tax paid in 2009 was $1,917, ranging from a high of $6,579 in New Jersey to a low of $243 in Louisiana. Homeowners who itemize can deduct the state and local taxes they pay — including property taxes — on their federal tax returns. Nonetheless, Harris (2013) finds that after-tax property taxes make up 20 percent of the total cost of homeownership for the median homeowner (including transactions costs). Although the deduction drives down the after-tax cost of property taxes, it does so only for taxpayers who itemize deductions. Moreover, because the per-dollar benefit of the deduction equals the marginal tax rate, it is most valuable for high-income taxpayers.

This proposal would offer several benefits. Switching the housing subsidy away from mortgage interest and toward property tax would continue to subsidize ongoing costs of homeownership while eliminating some of the incentives for homeowners to take on larger mortgages, particularly when financing other consumption. The single subsidy rate would equalize the value of the credit across income levels. Because the subsidy is relatively modest, substituting it for the current deductions would provide substantial deficit reduction.

The proposal would also have drawbacks. Because the federal government would effectively incur more than a third of the cost, it would encourage state and local governments to raise property tax rates. As a result, the proposal could induce a shift not only toward property taxes over other types of taxes but also toward local government revenue away from state tax collections. This policy is also less consistent with economic justification for subsidizing homeownership relative to the other two proposals considered here. It is unclear whether property taxes should be deductible at all, given that many regard property taxes as payments for government services. Further, homeowners with larger property tax bills would receive larger subsidies than those with low property taxes, even though there is no evidence of societal benefits to paying higher property taxes.

C. Homeowner Tax Credit

The proposal would give all homeowners an annual fixed dollar credit — $870 per year for single taxpayers and $1,300 per year for married taxpayers. The credit would phase out at the same income limits as the deductibility of IRA contributions — between $59,000 and $69,000 for single taxpayers and $95,000 and $115,000 for married taxpayers filing jointly in 2013.[22] Taxpayers owning a home

[21]Even with a short recoupment period, however, the subsidy would pose administrative challenges for the IRS, which would have to determine taxpayer eligibility based on the timing of prior home purchases.

[22]The phaseout would be based on modified adjusted gross income, which would equal AGI plus one-half Social Security benefits plus tax-exempt interest.

for part of a year would receive a partial subsidy, and the credit would be claimable only on one home at a time.

This credit would subsidize homeownership more directly than existing tax preferences. Because it would encourage homeownership in general rather than buying a bigger home or taking out a larger mortgage, the credit would promote the positive externalities of homeownership. Research has shown that the societal benefits of homeownership are unrelated to the cost of the home. Thus, there is little economic justification for basing the tax subsidy on home price. Moreover, unlike the first-time home buyer credit proposed above, this credit would maintain its value throughout homeownership. The credit's fixed dollar value and phaseout at higher income levels would also concentrate its impact on low- and middle-income homeowners, who are more likely to be on the homeownership margin.

One drawback to this proposal is that phasing out the credit would raise a recipient's marginal tax rate in the phaseout range. Further, although the tax laws generally do not make geographical distinctions regarding the size of benefits, some might object that the credit would cover a larger fraction of home costs in regions with low-priced houses and typically lower incomes than in regions where house prices are high. Another objection is that those who already would benefit from the favorable treatment of equity in a home (the nontaxation of imputed rent) could receive a double tax subsidy. The phaseouts deal only partly with this concern.

IV. Distributional and Revenue Effects

The existing tax preferences for owner-occupied homes favor ownership by higher-income taxpayers.[23] With the mortgage interest and property tax deductions, the two largest homeownership tax expenditures, favoritism occurs because deductions are worth more to taxpayers in higher tax brackets and because taxpayers with lower incomes tend not to itemize. For example, just 37 percent of tax units in the 15 percent bracket itemized deductions in 2010 compared with 89 percent in the top bracket (Harris and Baneman (2011)). Thus, these deductions have no value for the 88 percent of low- and middle-income taxpayers who do not itemize and are worth little to those low- and middle-income taxpayers who do.

The tax savings from the mortgage interest and property tax deductions, measured as a share of after-tax income, increase with income except for the very top of the income distribution. Repealing the mortgage interest deduction would hardly change average after-tax income for taxpayers in the bottom two quintiles but would reduce income by 0.4 percent for middle-quintile taxpayers (Table 1). Those in the top quintile would see their after-tax income decline by more than 1 percent. Because the mortgage interest deduction is capped, the benefit tapers for those at the top: Repealing the mortgage interest deduction would cut average after-tax income by just 0.5 percent for the highest-income 1 percent.[24]

The property tax deduction shows a similar distributional pattern but is worth less for most taxpayers. Like the mortgage interest deduction, the property tax deduction has almost no value for taxpayers in the bottom two quintiles. On average across all taxpayers in a quintile, repealing the property tax deduction would lower middle-quintile income by 0.2 percent, fourth quintile income by 0.3 percent, and top quintile income by 0.4 percent.

All three proposed reforms would make the tax system more progressive but to different degrees. Each would retain the current rate schedule and standard deduction, even though the standard deduction partly serves as a deduction in lieu of some of those we limit (a broader reform could reconsider its design as well). These reforms, of course, would spread the benefits of the tax preferences to households with less income, although in aggregate the reforms keep the aggregate tax burden for all tax units unchanged.

Introducing a first-time credit for a home purchase, in combination with the 15 percent limit on mortgage interest deductibility and elimination of the property tax deduction, would spread tax preferences for home ownership more evenly across the income distribution.[25] On average, taxpayers in the bottom quintile would see their after-tax income rise by 1.1 percent, even though relatively few taxpayers purchase a home in any given year (Table

[23]Whether they are regressive depends on how one views other parts of the tax code. For instance, the standard deduction offers low- and middle-income taxpayers more deductions than they would get if they itemized.

[24]Estimates of the effect on high-income taxpayers are upper bounds; taxpayers with financial wealth can ease the impact of a limitation on deductions for housing by reshuffling their portfolios. The estimates presented here assume that repeal would reduce aggregate tax savings and apply the same elasticity for all income groups.

[25]Our modeling of the first-time home buyer credit was limited to calculating the effect of a one-time credit because, from our data, we could not determine whether a newly purchased home merely replaced another one. These results, therefore, should be considered only suggestive, mainly regarding the distributional result.

2). Taxpayers in the middle three quintiles would see their after-tax income rise by 0.2 to 0.7 percent, while taxpayers in the top income quintile would see their after-tax income fall by 0.5 percent. Those in the 90th to 99th percentiles would incur the largest losses.

Implementing a credit for property taxes paid, again in conjunction with a 15 percent limit on mortgage interest deductions and elimination of property tax deductions, would also redistribute the tax benefits of homeownership to lower-income groups, but less dramatically. Taxpayers in the bottom three income quintiles would see their average after-tax income increase by about 0.5 percent; those in the fourth quintile would gain 0.2 percent (Table 3). Taxpayers in the top income quintile would see their after-tax income fall by 0.4 percent. Almost no taxpayers in the bottom three quintiles, and just 15.9 percent of taxpayers in the fourth quintile, would see their taxes rise.

The annual credit for homeownership would be the most progressive of the three reforms. The reform would raise average after-tax income by nearly 2 percent for the bottom quintile and by 1.4 percent for the second quintile (Table 4). Middle quintile taxpayers would see their after-tax income rise an average of almost 1 percent. Taxpayers in the top quintile would experience an average income drop of 0.8 percent — 70.8 percent of taxpayers in that quintile would see their taxes rise.

The reforms would have differing distributional effects across demographic groups. For instance, once fully implemented, a first-time home buyer credit would concentrate benefits earlier in the life cycle of the taxpayer, an effect we cannot easily display in a one-year distributional table.

By design, the combination of limited deductions and new housing tax incentives would be revenue-neutral over 10 years. After accounting for taxpayer behavior to reduce mortgages if they had other liquid assets, the mortgage interest and property tax limitations would raise $754 billion over 10 years, an amount that was then used to pay for the various options.[26]

V. Home Price Effects

Changing the tax treatment of owner-occupied housing would also affect home prices. Taxes influence house prices through four channels: the after-tax cost of mortgage interest, the after-tax cost of property taxes, the opportunity cost to housing equity (that is, the return on assets that could be invested elsewhere), and the transaction costs related to the purchase and sale of a home. Each reform would affect these channels differently.[27]

All three reforms — the combination of limited housing deductions plus new incentives for housing — would raise home prices in the 23 cities analyzed, but the magnitude and pattern of changes would vary (Table 5). The first-time home buyer tax credit would raise prices modestly in most cities. Price changes would range from unchanged (Honolulu and Los Angeles) to a 1.7 percent increase (Atlanta), with a median increase of 0.5 percent. The property tax credit would affect house prices more in both directions. Changes would range from a 1.9 percent decline (Honolulu) to 4.2 percent gain (Detroit). The median increase would be 1.2 percent. Prices would rise in 17 cities and fall in six. Price effects of the annual credit would vary even more, ranging from a 2.2 percent drop (Los Angeles) to a 9.6 percent increase (Detroit), with a median rise of 0.3 percent. Steep increases in three cities — Atlanta (7.1 percent), Detroit (9.6 percent), and St. Louis (5.8 percent) — skew the 1.1 percent mean increase. Prices would rise in 14 cities and fall in nine. House price effects would also differ across price of market; on average, more expensive markets would see small gains or price reductions while less expensive markets would see larger gains. A detailed distribution of price effects by income class is beyond the scope of this report.[28]

Rising home prices are generally a positive outcome but also have some negative implications for some taxpayers. First, rising home prices often

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[26]We first estimated the revenue gain from eliminating the property tax deduction and limiting the mortgage interest deduction to 15 percent. Absent behavioral change, these limitations would raise $822 billion in gross revenue over 10 years. However, because some taxpayers would pay down part or all of their mortgages and otherwise change their behavior, the gross revenue gain would be reduced by an estimated $68 billion over 10 years — $59 billion because of mortgages paydowns and $9 billion as the result of other behavioral responses. The elasticity of the mortgage paydown is in line with Poterba and Sinai (2011), who find that the revenue gain from eliminating the mortgage interest deduction in 2003 would

(Footnote continued in next column.)

be reduced by 24 percent — from $72.4 billion to $58.5 billion — because of taxpayers paying down their mortgage debt.

[27]To model home price effects, we estimate changes in the user cost of housing investment in 23 U.S. cities. Using data on city-specific factors such as tax rates, rent-to-price ratios, loan-to-value ratios, transaction costs, and interest rates, we model the change in the user cost of housing investment and then translate the change in user cost into a change in home prices. We assume that housing stock is fixed, which means that these estimates can either be interpreted as upper bounds or as short-run estimates depending on one's beliefs about housing supply elasticity. We also assume that home price effects in any city are the weighted average of the effects across statutory tax rates. The method is described in greater detail in the Appendix and Harris (2013).

[28]We also do not engage in the distributional effect over time of how tax changes get capitalized into prices.

result in higher property tax payments, although this effect typically occurs after a several-year lag. Second, rising home prices make home buying more expensive for taxpayers who have yet to purchase a home. From this perspective, rising home prices can be seen as a transfer of wealth from younger generations to older ones.

VI. Conclusion

The current tax preferences for homeownership have many shortcomings. They are regressive and expensive. They encourage excess mortgage borrowing and overconsumption of both housing and non-housing goods and services, while often doing little to promote homeownership. Many tax reform proposals have sought to change existing tax preferences for homeownership, generally with a goal of making them more progressive and more effective in promoting homeownership instead of the purchase of larger homes. Most proposals would limit tax deductions for mortgage interest or property taxes and turn them into credits. Those proposals would make tax preferences for housing more progressive but, in our view, would also give insufficient attention to the buildup of home equity and their potential for further promoting excessive debt, particularly for low- and moderate-income households.

We examine three policies that would directly promote homeownership. A first-time home buyer credit would help people purchase their first homes and begin accumulating housing equity. A generous refundable tax credit for property taxes paid would reduce the costs of owning a home throughout the homeowner's tenure, as would an annual fixed-dollar tax credit for homeownership. We calibrate each proposal to be revenue neutral over 10 years in combination with eliminating the deductibility of property taxes paid and capping the value of the mortgage interest deduction at 15 percent. All three of these policies would radically change the incentives for homeownership in the United States.

These options are meant to be representative, and there are variations that would achieve basically the same objective. For instance, mimicking current law, the cap on mortgage interest deductions could be based on the size of a mortgage rather than the taxpayer's tax rate.[29] Almost any dollar limit could also be set at a different level and phased in over time.

With no other changes to the tax code, these policies would be decidedly progressive, generally increasing after-tax income for the bottom three quintiles while sharply reducing after-tax income in the 80th to 95th percentiles. The progressivity of any broad-based reform should be considered in the context of the whole package, not piece by piece. Thus, progressivity in reform tends to be determined mainly by the rate schedule, the relative gains and losses of households with children by items like the child credit, and earned income tax credit. Even though the reforms modeled here tend to be progressive, their objective relative to current law is to encourage further asset accumulation in the population, particularly among low- and moderate-income households, and to reduce the existing incentives for borrowing. Targeting by income makes the subsidies more effective at encouraging homeownership than current law.

All three policies would raise demand for housing, pushing prices up an average of about 1 percent for a sample of U.S. cities. Price changes depend on market conditions; prices would rise in some cities and fall in others.

The policies would have different incentive effects. The first-time home buyer tax credit would offset the high transaction costs of buying or selling a home and thus reduce the high frictions inherent in the housing market. This strategy may appeal to those who view homeownership as a valuable tool for generating wealth and building assets. The annual subsidy and property tax credit would reduce the ongoing costs of owning a home and thus might appeal to those who want to encourage homeownership as a mechanism for improving civic engagement and maintaining the stock of housing.

While we generally consider these policies superior to existing law along many dimensions, they also have limitations. The first-time home buyer tax credit would require some additional administrative mechanisms to track use over time and, unless recaptured upon sale, would disfavor long-tenured homeownership. The annual subsidy, in conjunction with limits on itemized deductions, would do little to directly address the high cost of buying or selling a home. The property tax credit might encourage state and local governments to raise property taxes and spend more, perhaps leading to overconsumption of local government services. All three policies would reduce the number of itemizing tax units. This would simplify filing for many households, but it would also reduce tax incentives for other deductible activities such as charitable giving. Finally, we modeled these reforms only on a deficit-neutral basis, although they would more likely form only part of a larger budget or tax reform effort.

[29] A cap based on a tax bracket, as modeled here, creates one additional element of complexity for the taxpayer, since some would no longer be able to compare their total amounts to be itemized with the standard deduction to determine whether to itemize or not. Typical tax software could complete this fairly easily.

Despite these potential shortcomings, options along the three lines investigated here would encourage households at all income levels to buy and accrue equity in their own homes. They would avoid one of the flaws of both current law and many proposals to reform it: an excessive encouragement of mortgage borrowing.

VII. Appendix: Methodology

Distributional effects were modeled using the Urban-Brookings Tax Policy Center's microsimulation model. This large-scale microsimulation model produces revenue and distribution estimates of the U.S. federal tax system. It is similar to those used by the Congressional Budget Office, the JCT, and Treasury's Office of Tax Analysis.

The model is based on data from the 2004 public-use file (PUF) produced by the IRS Statistics of Income Division.[30] The PUF contains 150,047 records with detailed information from federal individual income tax returns filed in the 2004 calendar year. We attach additional information on demographics and sources of income that are not reported on tax returns through a constrained statistical match of the PUF with the March 2005 Current Population Survey (CPS) of the U.S. Census Bureau. This statistical match also generates a sample of individuals who do not file income tax returns (nonfilers). The data set combining filers from the PUF (augmented by demographic and other information from the CPS) and nonfilers from the CPS allows us to carry out distribution analysis on the entire population rather than just the segment that files individual income tax returns, and to model tax proposals that would potentially affect current nonfilers.

To estimate the effects of the proposed credit for home purchases, we needed to impute whether taxpayers in our database had purchased a house during the tax year and if so, the purchase price of the house. The main data source that we used in the imputations came from the Survey of Consumer Finances (SCF). The SCF is a triennial household survey sponsored by the Board of Governors of the Federal Reserve System. It aims to collect information on U.S. families' incomes, assets, and use of financial services. We used data from the 2004, 2007, and 2010 rounds of the SCF to estimate the coefficients used in the imputations for the tax model. To pool these years, we inflated the income data for 2004 and 2007 using the consumer price index for all urban consumers from the Bureau of Labor Statistics and similarly inflated house price data by the housing price index from the Federal Housing Finance Agency. We found targets for the number of home purchases and the mean price of homes sold in 2009 from the Census Bureau's Survey of Construction and the National Association of Realtors' existing home sales data series. The Survey of Construction provides monthly data on starts, completions, features, and sales of new homes in the United States that it collects mainly from permit-issuing offices. Similarly, the National Association of Realtors tracks sales of existing homes through surveys of realtor associations and boards. By pooling these two sources, we were able to estimate the number of houses sold in 2009 and their mean price.

The first step of the imputation was to impute a flag for taxpayers who had purchased a house during the tax year. The SCF asks respondents about their principal residence, including the type of residence, ownership status, year of purchase, and price at the time of purchase. We created a dummy variable for purchasing a home in the past year and ran a probit regression of purchasing a home on a group of variables that the SCF shares with the tax model database. These variables included the number of dependents, marital status, age of household head, and natural logs of income from passthrough businesses, farms, interest, dividends, rents and royalties, pensions, capital gains, and total income. We also included dummy variables for whether a household itemized deductions or filed Schedule C or Schedule E.

With the coefficient estimates from the probit regression, we estimated the probability that a taxpayer in the tax model database had purchased a home during the tax year. We limited the taxpayers that could possibly be chosen as new homeowners to nondependent taxpayers who had paid property taxes or mortgage interest during the year. We then drew a number from a uniform distribution and used the difference between each taxpayer's imputed probability and its random draw to assign new homeowner status. Taxpayers with the largest differences were chosen as new homeowners until we hit our target number of home purchases for 2009, which was 4,715,000 homes.

After selecting a set of taxpayers as new homeowners, we imputed the price of these taxpayers' new homes. Using SCF data on the house prices of families that purchased a home in the previous year and the same set of independent variables, we ran an ordinary least-squares regression. We applied the coefficient estimates from this regression to impute a house price for the taxpayers chosen as new homeowners in the tax model database. Then, based on the distribution of imputed house prices and a randomly drawn factor, we assigned each

[30]Future versions of the Urban-Brookings Tax Policy Center microsimulation model will be based on more recent SOI data.

taxpayer to a percentile value. To calibrate the predicted house prices to observed 2009 prices, we used this percentile to match taxpayers to the distribution of house prices reported in the SCF. Finally, we scaled all the imputed house prices so that their mean was $216,884 — the target mean house price for 2009. For years after 2009, we assumed that the population of new homeowners looked the same in terms of income and demographic features. Also, we used the CBO's projections of the Federal Housing Finance Agency housing price index to grow housing prices in later years.

Estimates of home price changes are produced using a ''discrete-period'' model developed by Harris (2013). The discrete-period housing model accounts for transaction costs and housing tenure. In equilibrium, consumers set the net present value of renting for K periods equal to the net present value of owning. Initial transaction costs (that is, those paid by the buyer) are denoted as T^0 and are expressed as a share of the price. Back-end transaction costs (that is, those paid by the seller) are denoted as T^K and are also expressed as a share of the price.[31] In addition to transaction costs, consumers also consider the net present value of after-tax mortgage interest payments and property taxes paid, the opportunity cost of housing equity, and appreciated housing (π). As in the standard user cost model, because of the high deduction for capital gains on owner-occupied housing, returns to housing investment are assumed to be untaxed. In the equation below, λ equals loan-to-value ratio, Y equals the deduction rate for mortgage interest and property taxes paid, τ^P equals the tax rate for property taxes paid, τ^{cg} equals the tax on capital gains, i is the discount rate, r_t^M is the mortgage interest rate, r^F is the return to financial assets, and P is housing price:

$$\sum_{t=1}^{K} \frac{R_t}{(1+i)^t} = PT^0 + P\sum_{t=1}^{K}\left[\frac{\lambda r_t^M (1-\tau^y) + \tau_t^P (1-\tau^y)}{(1+i)^t}\right] + P\left[\frac{(1-\lambda)\left((1+r^F(1-\tau^{cg})\right)^K - (1-\lambda)}{(1+i)^K}\right] + P\left[\frac{(1-\pi)^K (T^K)}{(1+i)^K}\right]$$

The model simulates changes in the cost of housing investment and housing prices for 23 metropolitan markets for which rent-to-price ratios are available. The unit of observation is the statutory tax rate in each metropolitan market; the city-specific effects are the weighted average of changes across the changes by hypothetical taxpayers in each statutory tax rate.

In modeling the price effects of the first-time home buyer tax credit and the annual homeowner tax credit, it was necessary to translate the nominal amount of the credit into a percentage of house value. To do this, we used home price data from the Zillow home value index, a monthly estimate of the dollar value of homes by geographic region (including metropolitan areas). The values are seasonally adjusted calculations based on Zillow's proprietary estimates of the value of each property in the geographic area; these estimates in turn are based on neighborhood and home characteristics as well as recent non-foreclosure house transaction data. In addition to the median home price estimates, Zillow collects and reports data on several other statistics, including the value and number of homes sold each month and information on initial home listings (see Yeng (2012) for additional information). There are noticeable limitations in the data coverage. Data on some large metro areas, including Houston and St. Louis, are unavailable. Statistics for these cities have been imputed based on other available data.

For each metropolitan area, Zillow produces data by three price tiers: low, medium, and high. For the first-time home buyer tax credit and the annual homeowner tax credit, we assumed that taxpayers in the 0 and 10 percent brackets owned homes in the lower tier, taxpayers in the 15 percent bracket owned homes in the middle tier, and taxpayers in the 25, 28, 35, and 39.6 percent brackets owned homes in the top tier. In modeling the first-time home buyer tax credit, we assumed that the price effect was weighted by the annual turnover rate in each metropolitan city as determined by the ratio of homes sold to existing structures in each metropolitan market.

[31]Transaction costs are estimated as a share of the price, but the relationship between price and transaction costs is not always straightforward. For example, title charges are not only exclusively a fixed cost but are also a function of the loan amount. Although realty fees have a fixed component, they are mostly a function of housing price (P); one study found that the relationship between realty costs (RC) and housing price was RC = $970 + 0.045 x P (Woodward (2008)).

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(Tables appear on the following pages.)

Table 1. Distributional Effects of Eliminating Home Mortgage and Property Tax Deductions, 2015[a]			
Expanded Cash Income Percentile[b]	Percent Change in After-Tax Income		
	Mortgage Interest Deduction	Property Tax Deduction	Both Deductions Combined
Lowest quintile	0	0	0
Second quintile	-0.1	-0.1	-0.1
Middle quintile	-0.4	-0.2	-0.5
Fourth quintile	-0.7	-0.3	-0.9
Top quintile	-1.1	-0.4	-1.4
All	-0.7	-0.3	-0.9
Addendum			
80-90 percent	-1.1	-0.5	-1.4
90-95 percent	-1.3	-0.6	-1.8
95-99 percent	-1.5	-0.3	-1.7
Top 1 percent	-0.5	-0.3	-0.8
Top 0.1 percent	-0.1	-0.2	-0.3

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-1).
[a]Calendar year. Baseline is current law. For a description of TPC's current law baseline, see http://www.taxpolicycenter.org/taxtopics/Baseline-Definitions.cfm.
[b]Includes both filing and nonfiling units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm. The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2013 dollars): 20 percent $24,844; 40 percent $48,286; 60 percent $82,182; 80 percent $137,646; 90 percent $188,942; 95 percent $271,750; 99 percent $641,453; 99.9 percent $3,329,195.

Table 2. Distributional Effects of One-Time Home Buyer Tax Credit, 2015[a]

Expanded Cash Income Percentile[b]	Tax Units With Tax Increase or Cut[c]				Percent Change in After-Tax Income[d]	Share of Total Federal Tax Change	Average Federal Tax Change (dollars)	Average Federal Tax Rate[e] (percentage points)	
	With Tax Cut		With Tax Increase						
	Percent of Tax Units	Average Tax Cut	Percent of Tax Units	Average Tax Increase				Change	Under the Proposal
Lowest quintile	1.3	-$12,221	0.7	$198	1.1	$451.3	-$154	-1	2.2
Second quintile	2	-$13,228	5.5	$276	0.7	$607	-$247	-0.7	7.7
Middle quintile	3.2	-$13,415	22.1	$597	0.5	$661.9	-$303	-0.5	13.5
Fourth quintile	4.3	-$14,427	45.4	$914	0.2	$355.2	-$198	-0.2	17
Top quintile	5.2	-$13,911	72.9	$2,754	-0.5	-$2,010.5	$1,281	0.4	26
All	2.9	-$13,612	23.5	$1,627	0	$100	-$9	0	19.7
Addendum									
80-90 percent	4.9	-$14,656	68	$1,681	-0.3	-$328	$419	0.3	19.5
90-95 percent	5.6	-$13,557	77.6	$2,529	-0.7	-$471.5	$1,207	0.5	21.6
95-99 percent	5.7	-$13,318	77.8	$3,681	-0.7	-$664.8	$2,109	0.6	24.9
Top 1 percent	4.6	-$11,030	79.2	$9,259	-0.5	-$546.2	$6,830	0.3	34.1
Top 0.1 percent	4	-$11,026	80.3	$16,669	-0.2	-$106.2	$12,947	0.1	36.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-1).
Number of alternative minimum tax payers (millions).
Baseline: 4.5. Proposal: 3.3.
[a]Calendar year. Baseline is current law. Proposal would eliminate the deduction for property taxes paid and limit the value of the mortgage interest deduction to 15 percent by adjusted regular or alternative minimum tax liability by the amount of the excess benefit. In addition, it would implement a 21.4 percent refundable credit for the price of a new home purchased during the tax year up to a maximum of $12,411 for single taxpayers ($18,616 for married taxpayers filing jointly). For a description of TPC's current law baseline, see http://www.taxpolicycenter.org/taxtopics/Baseline-Definitions.cfm.
[b]Includes both filing and nonfiling units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm. The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2013 dollars): 20% $24,844; 40% $48,286; 60% $82,182; 80% $137,646; 90% $188,942; 95% $271,750; 99% $641,453; 99.9% $3,329,195.
[c]Includes tax units with a change in federal tax burden of $10 or more in absolute value.
[d]After-tax income is expanded cash income less individual income tax net of refundable credits, corporate income tax, payroll taxes (Social Security and Medicare), and estate tax.
[e]Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average expanded cash income.

Table 3. Distributional Effects of Property Tax Credit, 2015[a]

Expanded Cash Income Percentile[b]	Tax Units With Tax Increase or Cut[c]				Percent Change in After-Tax Income[d]	Share of Total Federal Tax Change	Average Federal Tax Change (dollars)	Average Federal Tax Rate[e] (percentage points)	
	With Tax Cut		With Tax Increase						
	Percent of Tax Units	Average Tax Cut	Percent of Tax Units	Average Tax Increase				Change	Under the Proposal
Lowest quintile	20.3	-$272	0	$0	0.4	-$396.9	-$55	-0.4	2.8
Second quintile	45.2	-$362	*	**	0.5	-$980.1	-$164	-0.4	7.9
Middle quintile	54.6	-$451	5.8	$470	0.4	-$1,167.2	-$219	-0.3	13.7
Fourth quintile	51.4	-$599	15.9	$741	0.2	-$831	-$190	-0.2	17
Top quintile	26.5	-$705	56	$1,978	-0.4	$3,522.9	$920	0.3	25.9
All	38.8	-$459	11.7	$1,556	0	$100	$4	0	19.7
Addendum									
80-90 percent	32.3	-$625	45.4	$966	-0.2	$452.1	$237	0.1	19.4
90-95 percent	20.3	-$640	65.4	$1,426	-0.4	$764.9	$803	0.3	21.4
95-99 percent	22.7	-$959	66.4	$2,549	-0.5	$1,133.2	$1,474	0.4	24.7
Top 1 percent	15.3	-$1,270	73	$8,498	-0.4	$1,172.7	$6,011	0.3	34.1
Top 0.1 percent	16.1	-$1,363	73.9	$16,712	-0.2	$242.7	$12,129	0.1	36.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-1).
Number of alternative minimum tax payers (millions). Baseline: 4.5. Proposal: 3.3.
*Less than 05.
**Insufficient data.
[a]Calendar year. Baseline is current law. Proposal would eliminate the deduction for property taxes paid and limit the value of the mortgage interest deduction to 15 percent by adjusted regular or alternative minimum tax liability by the amount of the excess benefit. In addition, it would replace the deduction for property taxes paid with a 35.8 percent refundable credit for property taxes paid, capped at $1,448 ($2,172 for married taxpayers filing jointly). For a description of TPC's current-law baseline, see http://www.taxpolicycenter.org/taxtopics/Baseline-Definitions.cfm.
[b]Includes both filing and nonfiling units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm. The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2013 dollars): 20% $24,844; 40% $48,286; 60% $82,182; 80% $137,646; 90% $188,942; 95% $271,750; 99% $641,453; 99.9% $3,329,195.
[c]Includes tax units with a change in federal tax burden of $10 or more in absolute value.
[d]After-tax income is expanded cash income less individual income tax net of refundable credits, corporate income tax, payroll taxes (Social Security and Medicare), and estate tax.
[e]Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average expanded cash income.

Table 4. Distributional Effects of Annual Credit for Homeownership, 2015[a]

Expanded Cash Income Percentile[b]	Tax Units With Tax Increase or Cut[c]				Percent Change in After-Tax Income[d]	Share of Total Federal Tax Change	Average Federal Tax Change (dollars)	Average Federal Tax Rate[e] (percentage points)	
	With Tax Cut		With Tax Increase						
	Percent of Tax Units	Average Tax Cut	Percent of Tax Units	Average Tax Increase				Change	Under the Proposal
Lowest quintile	28.2	-$969	*	**	1.9	$262.1	-$273	-1.8	1.4
Second quintile	46.7	-$1,011	0.4	$303	1.4	$378.4	-$471	-1.3	7.1
Middle quintile	53.4	-$1,008	6.5	$634	0.9	$355.6	-$497	-0.8	13.2
Fourth quintile	44.7	-$998	21	$1,296	0.2	$102.3	-$175	-0.2	17
Top quintile	9	-$656	70.8	$2,890	-0.8	-$1,019.2	$1,987	0.6	26.2
All	37.5	-$989	14.8	$2,313	0	$100	-$28	0	19.7
Addendum									
80-90 percent	17.3	-$657	59.1	$1,753	-0.7	-$236.5	$924	0.6	19.8
90-95 percent	1.4	-$653	81.9	$2,547	-1.1	-$265.1	$2,077	0.9	22
95-99 percent	0.1	-$441	82.8	$3,696	-1.1	-$315.1	$3,059	0.8	25.1
Top 1 percent	*	**	83.6	$9,268	-0.6	-$202.4	$7,744	0.4	34.2
Top 0.1 percent	*	**	84	$16,618	-0.2	-$37.4	$13,950	0.1	36.2

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-1).
Number of alternative minimum tax payers (millions). Baseline: 4.5. Proposal: 3.3.
*Less than 0.05.
**Insufficient data.
[a]Calendar year. Baseline is current law. Proposal would eliminate the deduction for property taxes paid and limit the value of the mortgage interest deduction to 15 percent by adjusted regular or alternative minimum tax liability by the amount of the excess benefit. In addition, it would implement a refundable credit for homeownership of $899 for single taxpayers ($1,348 for married taxpayers filing jointly), which would phase out based on the income amount used to calculate taxability of Social Security benefits between $61,000 and $73,000 for single taxpayers ($98,000 and $122,000 for married taxpayers filing jointly; $0 and $12,000 for married taxpayers filing separately). For a description of TPC's current-law baseline, see http://www.taxpolicycenter.org/taxtopics/Baseline-Definitions.cfm.
[b]Includes both filing and nonfiling units but excludes those that are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but are included in the totals. For a description of expanded cash income, see http://www.taxpolicycenter.org/TaxModel/income.cfm. The income percentile classes used in this table are based on the income distribution for the entire population and contain an equal number of people, not tax units. The breaks are (in 2013 dollars): 20% $24,844; 40% $48,286; 60% $82,182; 80% $137,646; 90% $188,942; 95% $271,750; 99% $641,453; 99.9% $3,329,195.
[c]Includes tax units with a change in federal tax burden of $10 or more in absolute value.
[d]After-tax income is expanded cash income less individual income tax net of refundable credits, corporate income tax, payroll taxes (Social Security and Medicare), and estate tax.
[e]Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average expanded cash income.

Table 5. Effects of Reforms to Tax Preferences for Homeownership[a]

	Home Price Effects			User Cost Effects		
	Property Tax Credit[b]	One-Time Home Buyer Credit[c]	Annual Homeownership Credit[d]	Property Tax Credit[b]	One-Time Home Buyer Credit[c]	Annual Homeownership Credit[d]
Atlanta	1.2	1.7	7.1	-1	-1.1	-4
Boston	0.1	0.1	-1.3	0.1	-0.1	2
Chicago	1.9	0.4	0.1	-1.5	-0.3	1.3
Cincinnati	2.4	0.6	2.1	-2	-0.4	0
Cleveland	3.6	0.5	2.3	-3.1	-0.4	0.2
Dallas	2.7	0.7	1.4	-2.1	-0.5	0.6
Denver	-0.8	0.7	1.7	1.1	-0.6	-0.7
Detroit	4.2	0.7	9.6	-3.4	-0.5	-3.9
Honolulu	-1.9	0	-1.1	2.1	0	1.7
Houston	2.1	0.7	0	-1.4	-0.5	1.6
Kansas City	1.8	0.7	2.6	-1.5	-0.5	-0.7
Los Angeles	-0.7	0	-2.2	1	0	2.9
Miami	1.6	1.2	3.5	-1.3	-0.8	-1.6
Milwaukee	2.6	0.2	-2.1	-1.7	-0.1	3.8
Minneapolis	1.5	0.5	0.3	-1.1	-0.4	1
New York	-0.2	0.1	-1.4	0.5	0	2
Philadelphia	0.3	0.2	1.7	0	-0.2	-0.5
Pittsburgh	3.7	0.2	2.2	-3.2	-0.2	0
Portland	1.1	0.5	-0.7	-0.8	-0.4	1.7
San Diego	-0.3	0.1	-1.8	0.6	-0.1	2.4
San Francisco	-1	0	-2.1	1.3	0	2.7
Seattle	0.4	0.3	-1	-0.1	-0.2	1.6
St. Louis	0.7	0.9	5.8	-0.4	-0.7	-3.2
Mean	1.2	0.5	1.1	-0.8	-0.3	0.5
Median	1.2	0.5	0.3	-1	-0.4	1
Minimum	-1.9	0	-2.2	-3.4	-1.1	-4
Maximum	4.2	1.7	9.6	2.1	0	3.8

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0613-1).
[a]Baseline is current law. All proposals would limit the value of the mortgage interest deduction to 15 percent by adjusting regular or alternative minimum tax liability by the amount of the excess benefit and would eliminate the deduction for property taxes paid.
[b]Proposal would replace the deduction for property taxes paid with a 35.8 percent refundable credit for property taxes paid, capped at $1,448 ($2,172 for married taxpayers filing jointly).
[c]Proposal would implement a 21.4 percent refundable credit for the price of a new home purchased during the tax year up to a maximum of $12,411 for single taxpayers ($18,616 for married taxpayers).
[d]Proposal would implement a refundable credit for homeownership of $899 for single taxpayers ($1,348 for married taxpayers filing jointly), which would phase out based on the income amount used to calculate taxability of Social Security benefits between $61,000 and $73,000 for single taxpayers ($98,000 and $122,000 for married taxpayers filing jointly; $0 and $12,000 for married taxpayers filing separately).